

Methodology/Technical Notes

(source: School Library Media Centers: 1993-1994)

I. Background

The primary source of data in the report is the 1993-94 Library Survey, sponsored by the National Center for Education Statistics, U.S. Department of Education, and conducted by the U.S. Bureau of the Census. It was the first federally sponsored survey of library media centers and head librarians in elementary and secondary schools. The purpose of the survey was to collect data that could be used to measure the adequacy of school library media centers as support for the schools' educational programs and goals. The need for these kinds of data was a result of growing concern in recent years about the adverse effects of local and state government budget shortfalls on education in general and on funding for school library collections and staffing in particular.

In preparation for the 1993-94 survey, a field test was conducted during the 1990-91 school year, in conjunction with the Schools and Staffing Survey (SASS).¹ Questionnaires were mailed to approximately 700 public and private schools that had also been selected for participation in the SASS. Table I-1 displays the results of data collection for the test.

Table I-1.—Summary of Library Survey field test, 1990-91

Questionnaire	Mailed out	Completed	Noninterviews	Out-of-scope cases
Library Media Centers				
Public	291	260	11	20 ¹
Private	391	262	31	98 ¹
Librarians				
Public	291	253	10	28 ²
Private	391	157	26	208 ²

¹Includes cases where the sample school was out of scope (e.g., not a school; postsecondary only) and those where the school did not have a library.

²Includes cases where the school was out of scope, those where the school did not have a library, and those where the library did not have a librarian.

As a result of the field test, some items on the questionnaires were deleted and others were reworded before the 1993-94 survey.

¹For a complete description of the 1990-91 Schools and Staffing Survey, see *1990-91 Schools and Staffing Survey: Data File User's Manual*, U. S. Department of Education, National Center for Education Statistics, NCES 93-144-I.

The 1993-94 Library Survey was conducted in conjunction with the 1993-94 SASS, so much of this report uses data from SASS as well. In particular, data on the distribution of library media centers and some data on library staffing are based on the SASS school questionnaire, comparisons of librarians with teachers make use of the SASS teacher questionnaire, data on the number of FTE positions (including staffing vacancies and positions that were withdrawn or abolished) are from the SASS teacher demand and shortage questionnaire for public school districts, and data on school problems and on the influence of various groups are from the SASS school principal questionnaire. Further, data from the 1993-94 Library Survey were often merged with SASS data in order to produce breakdowns by school size and free lunch eligibility. Sometimes a library media center or head librarian completed a survey when the school did not respond, in which case data are missing for school size and free lunch eligibility. For such analyses, the totals include all cases, but the breakdowns for school size and free lunch eligibility include only those cases for which the required data are available. Because of low response rates for non-Catholic religious schools and non-sectarian schools, only results for Catholic schools are reported under orientation.

In order to examine changes over time, the report also includes data from a wide variety of other sources. Most significantly, these include surveys of public school libraries in 1958-59 and 1962-63, a survey of public school library media centers in 1974, a survey of public school libraries and media centers in 1978, and a survey of public and private school library media centers in 1985-86. Each table in Appendix A lists the specific sources that were used for that table. Generally standard errors were not available for the historical data, so it was not possible to perform significance tests of changes over time. Instead, the historical data are discussed in a descriptive manner.

The remainder of this appendix provides additional information about the 1993-94 Library Survey.

II. Survey Content

The 1993-94 Library Survey consisted of two components—the Library Media Center Survey and the Library Media Specialist/Librarian Survey. The questionnaires for these components were administered to a sample of public, private, and Bureau of Indian Affairs (BIA) schools.

- The ***Library Media Center Questionnaires*** (Forms LS-1A, LS-1B, and LS-1C) had these five sections:

Section A - Library Media Center Staffing obtained counts of (1) certified library media specialists, (2) professional staff members who were not certified as library media specialists, and (3) other paid library staff by full-time/part-time status. Also obtained were data on college degrees held by professional staff members, number of adult and student volunteers in the library, and, for private schools, counts of staff members who worked on a contributed service basis.

Section B - 1992-93 Collection and Expenditures obtained data for the 1992-93 school year on materials in the library media center's collection (books, serial subscriptions, audio-visual materials, computer software, and CD-ROM), acquisitions, expenditures, and adequacy of the collection for the school's needs.

Section C - Technology collected information on technical equipment and services available in the library media center or elsewhere in the school, e.g., computers, automated catalog, on-line database searching, cable television, and distance learning.

Section D - Library Media Center Facilities contained questions on the seating capacity and the types of spaces available in the library media center, e.g., individual reading space, conference rooms, storage, workrooms, and space for group activities.

Section E - Scheduling and Transactions obtained information about use of the library media center— how classes were scheduled, when students could check out materials, how many students used the library in a week, types and number of materials that could be checked out by students, etc.

- The ***Library Media Specialist/Librarian Questionnaires*** (Forms LS-2A, LS-2B, LS-2C) were mailed to the head librarians at schools selected for the Library Survey and had these seven sections:

Section A - Current Status obtained information about the librarian's current position — whether full time or part time, whether he/she also was a classroom teacher, other assignments at the school, and main activity outside the school.

Section B - Experience had questions on year of first school librarian position, main activity before becoming a school librarian, and years of experience as a school librarian.

Section C - Training collected data on college degrees, inservice training participation, and certification.

Section D - Collaborative Activities had questions on how often the librarian worked with classroom teachers, number of extra hours worked each week, and other duties at the school (e.g., cafeteria duty, study hall, playground duty).

Section E - Perceptions and Attitudes Toward Work obtained data on how the respondent felt about his/her current position and about the profession in general.

Section F - Compensation obtained information on the respondent's school salary, other earned income, benefits, and family income.

Section G - Background Information obtained data on the librarian's gender, race, year of birth, marital status, and number of dependents.

Copies of the questionnaires used in the 1993-94 Library Survey can be obtained by writing to:

Library Survey Questionnaires
National Center for Education Statistics
Room 320
555 New Jersey Avenue, N.W.
Washington, DC 20208-5651

III. Target Populations and Estimates

A. Target Populations

The target populations for the 1993-94 Library Survey were:

- The library media centers in public, private, and BIA schools with students in any of grades 1-12, or comparable ungraded levels; and
- The head librarians at those schools.

B. Estimates

The Library Survey was designed to produce estimates at the state and national level for public schools, at the national level for BIA schools, and at the national and major affiliation level (Catholic, other religious, nonsectarian) for private schools. Selected standard errors are presented in Tables III-1 and III-2.

Table III-1.—Selected estimates and standard errors for survey of school library media centers

School characteristic	Percent with a computer and modem		Percent with connection to Internet		Percent in which teachers purchase materials for use in classroom		Percent rating currentness of support regarding reference as excellent or adequate		Percent rating currentness of support in science/technology as excellent or adequate	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
TOTAL	31.4	0.8	10.7	0.5	78.3	0.7	65.2	1.0	50.7	0.9
PUBLIC										
School level										
Elementary	28.3	1.2	9.5	0.8	77.4	1.3	65.5	1.3	54.2	1.4
Secondary.....	48.2	1.5	17.5	4.5	81.4	1.0	68.6	1.3	49.3	1.3
Combined.....	37.9	3.0	14.9	12.7	80.9	3.0	56.7	3.0	45.0	3.0
School size										
0-149.....	29.5	3.2	7.2	1.1	82.3	2.1	64.7	3.2	50.2	3.0
150-299.....	25.8	2.2	11.3	1.5	79.1	2.2	60.8	3.2	47.4	2.8
300-599.....	31.4	1.4	10.2	0.9	77.4	1.6	64.7	1.6	50.8	2.0
600 or more.....	44.6	1.6	16.8	1.1	79.3	1.4	72.9	1.4	59.7	1.7
Free lunch eligibility										
Less than 20 percent	43.4	2.1	17.8	1.4	80.0	1.7	70.6	1.9	55.1	2.3
20-49 percent	33.0	1.5	10.7	1.0	78.7	1.3	66.1	1.9	54.0	1.9
50 percent or more	27.3	1.8	9.0	1.1	76.7	1.8	63.9	1.8	50.5	2.0
PRIVATE										
School level										
Elementary	12.2	1.5	2.8	0.8	75.5	1.7	65.9	1.9	48.9	1.7
Secondary.....	30.2	1.9	9.2	1.1	80.6	2.3	56.9	3.3	41.3	3.1
Combined.....	27.9	2.7	7.5	1.2	76.6	3.3	53.8	3.5	31.2	2.7
School size										
0-149.....	14.3	2.2	2.7	0.9	75.0	2.9	59.6	2.7	34.8	2.8
150-299.....	17.3	1.7	5.2	0.8	76.7	2.0	60.3	2.2	46.5	2.4
300-599.....	23.4	2.4	7.2	1.6	79.7	2.2	69.5	2.4	55.2	2.5
600 or more.....	47.4	3.1	16.8	1.9	78.9	3.2	82.1	2.3	60.9	3.4
Orientation										
Catholic.....	16.0	1.3	4.6	0.9	76.0	1.7	66.5	1.7	50.6	1.7

NOTE: Statistics are based on the 92 percent of schools with library media centers. Details may not add to totals because of cell suppression. Survey of American Indian schools was a census, so no standard errors are included; however, Indian schools are included in the overall totals to maintain comparability with other data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey: 1993-94, Library Media Center Questionnaire.

Table III-1.—Selected estimates and standard errors for survey of school library media centers (continued)

School characteristic	Number of state-certified library media specialists		Number on non-certified professional staff		Number of other staff		State-certified library media specialists as a percentage of all library staff		Mean library media center expenditures on collections per school	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
TOTAL	72,160.4	1,063.6	33,668.9	916.1	58,813.7	1,301.2	43.8	0.5	6,160.1	124.7
PUBLIC										
School level										
Elementary	41,910.9	915.2	14,296.1	749.6	33,218.5	964.2	46.9	0.8	5,594.1	154.9
Secondary.....	23,287.3	527.1	5,965.6	378.5	18,715.8	601.0	48.5	0.7	9,688.9	324.1
Combined.....	1,484.0	88.8	559.7	70.9	1,177.8	95.0	46.1	1.9	7,230.0	478.3
School size										
0-149.....	4,410.7	377.2	2,031.1	201.0	3,142.0	322.7	46.0	2.3	3,854.4	179.8
150-299.....	9,563.8	547.9	3,436.1	397.7	7,414.6	594.6	46.8	1.8	4,724.6	202.9
300-599.....	25,136.9	815.2	8,133.9	574.4	18,236.1	865.9	48.8	0.9	5,821.9	177.0
600 or more.....	23,278.8	706.3	5,382.7	445.2	20,563.8	709.5	47.3	0.7	9,957.9	251.7
Free lunch eligibility										
Less than 20 percent	20,697.9	818.4	5,360.0	410.0	18,526.4	911.6	46.4	1.0	8,594.0	244.7
20-49 percent.....	20,611.9	784.9	6,955.3	559.7	16,072.5	807.4	47.2	0.9	6,261.2	168.7
50 percent or more	18,406.0	737.3	5,602.0	457.0	12,660.6	724.9	50.2	1.2	5,540.9	270.4
PRIVATE										
School level										
Elementary	2,158.2	225.8	7,095.1	320.9	2,630.5	273.5	18.2	1.5	2,232.1	146.3
Secondary.....	1,947.3	166.2	2,727.7	244.1	1,924.4	191.9	29.5	1.8	5,826.5	551.7
Combined.....	1,265.9	81.8	2,972.7	297.7	1,069.8	132.2	23.8	1.8	4,375.2	350.8
School size										
0-149.....	956.4	145.4	3,697.4	436.2	1,182.3	256.0	16.4	2.7	1,193.9	104.6
150-299.....	1,363.1	123.2	4,034.6	293.4	1,392.6	175.4	20.1	1.3	3,270.8	185.5
300-599.....	1,574.0	183.1	2,523.9	157.2	1,601.2	169.1	27.6	1.6	5,266.8	373.8
600 or more.....	833.9	59.4	1,088.7	87.9	796.2	79.4	30.7	1.4	13,520.5	966.2
Orientation										
Catholic.....	2,661.8	159.8	5,593.1	176.0	2,268.7	171.0	25.3	1.3	2,985.2	104.8

NOTE: Statistics are based on the 92 percent of schools with library media centers. Details may not add to totals because of cell suppression. Survey of American Indian schools was a census, so no standard errors are included; however, Indian schools are included in the overall totals to maintain comparability with other data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey: 1993-94, Library Media Center Questionnaire.

Table III-2.—Selected estimates and standard errors for survey of school library media centers' head librarians

School characteristic	Percent who are regular full-time librarian at sampled school		Percent with master's degrees who have MLS from an ALA accredited program		Percent who had library-related in-service or college courses during 1989-1994		Percent who are certified by their state as a library media specialist		Percent who said personal improvement was major purpose for training in 1989-94, of those receiving training	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
TOTAL	65.0	0.9	47.9	1.4	82.7	0.8	77.3	0.8	54.9	1.0
PUBLIC										
School level										
Elementary	62.4	1.4	46.0	2.3	84.3	1.3	79.4	1.1	52.0	1.6
Secondary.....	76.2	1.4	49.0	1.1	87.7	1.0	90.8	1.0	59.4	1.3
Combined.....	61.0	3.9	42.6	3.0	84.6	1.6	87.5	1.5	45.0	4.1
School size										
0-149.....	21.9	3.1	37.5	6.9	87.7	2.9	85.4	2.8	50.6	4.9
150-299.....	36.6	2.5	44.7	4.2	84.4	2.7	81.9	2.4	50.9	2.6
300-599.....	67.2	1.4	48.7	2.4	86.0	1.3	81.2	1.4	54.8	1.5
600 or more.....	89.8	1.3	46.2	2.0	84.3	1.6	85.0	1.7	55.4	2.1
Free lunch eligibility										
Less than 20 percent	67.9	2.0	50.6	2.7	89.3	1.2	87.0	1.4	57.7	1.7
20-49 percent	66.7	2.3	41.8	2.4	82.0	1.7	82.6	1.5	51.9	2.2
50 percent or more	65.3	2.4	46.4	3.0	84.5	1.5	78.4	2.0	52.3	2.5
PRIVATE										
School level										
Elementary	40.8	2.3	54.5	3.6	61.1	2.3	22.2	1.8	65.0	2.5
Secondary.....	69.8	2.3	64.7	2.4	67.2	2.0	47.8	2.2	56.4	2.7
Combined.....	57.8	4.0	55.6	3.4	60.6	3.6	36.3	3.3	64.1	2.9
School size										
0-149.....	75.2	4.2	58.4	7.7	56.5	5.9	33.2	5.5	61.6	6.1
150-299.....	41.4	2.3	53.5	3.7	58.8	2.2	20.9	1.8	65.6	3.1
300-599.....	67.1	3.1	59.0	4.0	68.9	2.7	36.1	2.8	61.0	2.8
600 or more.....	86.4	2.5	59.9	2.6	71.9	2.9	58.9	3.6	57.4	3.3
Orientation										
Catholic.....	54.5	2.3	55.0	2.5	64.1	1.8	30.0	1.9	64.2	2.5

NOTE: Statistics are based on the 92 percent of schools with library media centers. Details may not add to totals because of cell suppression. Survey of American Indian schools was a census, so no standard errors are included; however, Indian schools are included in the overall totals to maintain comparability with other data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey: 1993-94, Library Media Specialist/Librarian Questionnaire.

Table III-2.—Selected estimates and standard errors for survey of school library media centers' head librarians (continued)

School characteristic	Mean years since first worked as librarian		Mean total years worked as librarian		Mean age		Mean hours spent on job-related activities outside of contractual day		Percent who work with math teachers at least annually to plan instruction	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
TOTAL	12.4	0.2	11.9	0.2	46.8	0.2	6.8	0.1	34.1	1.0
PUBLIC										
School level										
Elementary	11.7	0.3	11.3	0.2	46.0	0.3	7.1	0.2	34.7	1.6
Secondary.....	14.8	0.2	14.2	0.2	47.5	0.2	6.8	0.1	36.9	1.2
Combined.....	13.6	0.5	13.1	0.5	45.9	0.5	5.7	0.3	29.4	3.1
School size										
0-149.....	12.3	0.7	12.2	0.7	46.1	0.6	6.5	0.4	29.9	5.2
150-299.....	11.7	0.7	11.3	0.5	46.1	0.5	7.4	0.3	26.9	2.7
300-599.....	12.1	0.4	11.7	0.4	46.1	0.3	7.1	0.2	37.2	1.9
600 or more.....	13.8	0.3	13.3	0.3	47.0	0.3	6.7	0.2	38.9	1.5
Free lunch eligibility										
Less than 20 percent	13.4	0.3	12.6	0.3	46.9	0.3	7.7	0.2	36.9	2.2
20-49 percent	12.8	0.4	12.5	0.4	46.4	0.4	6.4	0.2	33.7	1.9
50 percent or more	11.7	0.3	11.6	0.3	45.9	0.3	7.3	0.3	38.1	2.2
PRIVATE										
School level										
Elementary	9.2	0.5	8.4	0.4	49.4	0.6	5.7	0.2	24.8	2.4
Secondary.....	11.7	0.5	11.2	0.4	49.0	0.5	5.3	0.2	22.1	2.3
Combined.....	9.6	0.6	9.2	0.6	46.6	0.9	5.3	0.3	21.9	2.7
School size										
0-149.....	10.8	1.2	8.5	0.9	50.3	1.2	4.4	0.4	17.5	4.8
150-299.....	9.0	0.5	8.8	0.4	48.4	0.7	5.5	0.3	26.8	2.9
300-599.....	9.9	0.5	9.2	0.4	48.7	0.8	6.6	0.3	22.9	2.7
600 or more.....	12.8	0.7	12.5	0.6	49.9	0.6	5.6	0.2	32.1	2.8
Orientation										
Catholic.....	10.0	0.4	9.6	0.4	50.3	0.6	5.4	0.2	24.2	2.2

NOTE: Statistics are based on the 92 percent of schools with library media centers. Details may not add to totals because of cell suppression. Survey of American Indian schools was a census, so no standard errors are included; however, Indian schools are included in the overall totals to maintain comparability with other data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey: 1993-94, Library Media Specialist/Librarian Questionnaire.

IV. Sample Design and Implementation²

The sample for the Library Survey consisted of a subsample of the public and private schools selected for the 1993-94 Schools and Staffing Survey (SASS)³ and all elementary and secondary schools funded by the Bureau of Indian Affairs (BIA). For each selected school, the sample units were the school's library media center and the head librarian.

Table IV-1 displays the number of schools in the original sample design for the Library Survey by sector and level. (In actuality, 5,010 schools were selected for the public sector and 2,536 for the private sector. The number of BIA schools selected was 176.)

Table IV-1.—Number of schools selected for the Library Survey				
Sector	Level			
	Elementary	Combined	Secondary	Total
Bureau of Indian Affairs (BIA)	122	29	25	176
Public (non-BIA).....	2,274	698	2,022	4,994
Private.....	1,337	673	490	2,500
Total.....	3,733	1,400	2,537	7,670

²For a detailed description of the sample design, see R. Abramson, C. Cole, S. Fondelier, B. Jackson, R. Parmer, and S. Kaufman, *1993-94 Schools and Staffing Survey: Sample Design and Estimation*, U.S. Department of Education, National Center for Education Statistics, NCES 95-089, or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

³For a complete description of the 1993-94 Schools and Staffing Survey, see *1993-94 Schools and Staffing Survey: Data File User's Manual*, U. S. Department of Education, National Center for Education Statistics.

V. Data Collection Procedures

The 1993-94 Library Survey data were collected for the National Center for Education Statistics (NCES) by the Bureau of the Census during the 1993-94 school year. The data collection operations were concurrent with those for the Schools and Staffing Survey. The Library Media Center Questionnaires and the Library Media Specialist/Librarian Questionnaires were mailed to selected public, private, and BIA schools in October 1993. The Library Media Center Questionnaires were addressed to "Principal" and the Library Media Specialist/Librarian Questionnaires were addressed to "Library Media Specialist/Librarian." For the library media center form, the respondent could have been the school librarian or another school employee who was familiar with the library. The only eligible respondent for the librarian questionnaire was the head librarian or the school staff member whose main assignment was to oversee the library.

The questionnaires included a letter that, as required by the Office of Management and Budget (OMB), explained the purpose of the survey and stated that participation in the survey was voluntary. Also included on the questionnaires were instructions for filling the form and a toll-free Census Bureau telephone number that respondents could call if they needed information or assistance in completing the questionnaire.

Reminder postcards were mailed 1 week after the questionnaires; about 6 weeks later, second questionnaires were mailed to those schools that had not returned the original forms. Beginning in January 1994, Census Bureau staff called schools that had not returned the questionnaires and conducted computer-assisted telephone interviews (CATI) to collect the data. A few cases where the CATI interviewers were unable to collect the data were assigned to field representatives (FRs) associated with the 12 Census regional offices. These FRs completed paper questionnaires while collecting the data over the telephone.

Table V-1 summarizes the number of sample cases included in each step of data collection.

Table V-1.—Data collection summary

Questionnaire	Mailed first questionnaire	Mailed second questionnaire		In CATI followup		In FR telephone follow-up	
	Number	Number	Percent	Number	Percent	Number	Percent
Library media centers							
Public (LS-1A).....	5,026	2,807	55.8	1,940	38.6	385	7.7
Private ¹ (LS-1B)	2,536	1,687	66.5	1,098	43.3	159	6.3
Indian (LS-1C).....	160	95	59.4	57	35.6	9	5.6
Librarians							
Public (LS-2A).....	5,026	2,549	50.7	1,382	27.5	342	6.8
Private (LS-2B).....	2,536	1,613	63.6	1,004	39.6	186	7.3
Indian ¹ (LS-2C).....	160	89	55.6	51	31.9	8	5.0

¹The Indian School Library Media Center Questionnaire (LS-1C) and the Indian School Library Media Specialist/Librarian Questionnaire (LS-2C) were mailed to schools funded by the Bureau of Indian Affairs (BIA) if they were not operated by a local school district. Sixteen BIA schools operated by school districts were sent the public school library and librarian questionnaires (LS-1A and LS-2A).

VI. Response Rates

A. Survey Response Rates

The weighted and unweighted response rates for the 1993-94 Library Survey are shown in Tables VI-1 - VI-3. Response rates by state are provided for public school libraries and librarians; rates by three affiliation categories (Catholic, other religious, nonsectarian) are given for the private sector. For BIA schools, only the national response rates are shown.

The unweighted response rates were calculated by dividing the number of interview cases by the number of eligible cases. The number of eligible cases was the number of sample cases minus the number of cases that were out of scope for the survey. Out-of-scope cases included those where the school was closed, the school had no library media center, or, for the librarian questionnaire, the school had no librarian. (For a more detailed discussion of interviewed cases and out-of-scope cases, see section VII.D of these technical notes.)

The weighted rates were calculated by dividing the sum of the basic weights for the interview cases by the sum of the basic weights for the eligible cases. For each sample case, the basic weight was assigned at the time of sample selection and is the inverse of the probability of selection. Because all BIA schools were selected for the survey, the weighted and unweighted response rates for these schools are the same.

Table VI-1.—Unweighted and weighted response rates for public school library media centers and head librarians, by state

State	Library media centers		Head librarians	
	Unweighted	Weighted	Unweighted	Weighted
Total	91.1%	90.1%	93.5%	92.3%
Alabama	96.6	97.8	94.6	95.8
Alaska	79.8	73.8	87.5	80.8
Arizona	94.8	97.0	95.5	95.4
Arkansas	97.5	96.8	92.4	91.6
California	81.4	82.1	87.0	87.5
Colorado	93.8	89.2	90.3	87.1
Connecticut	88.2	86.9	97.0	96.0
Delaware	90.9	89.6	95.1	93.8
District of Columbia	84.1	85.4	85.0	86.1
Florida	95.6	97.5	95.3	93.9
Georgia	93.3	96.2	94.4	93.6
Hawaii	97.1	97.1	95.6	95.5
Idaho	95.2	94.8	95.5	94.7
Illinois	87.5	89.1	91.2	91.0
Indiana	97.6	96.5	97.5	97.4
Iowa	96.2	96.8	95.9	96.4
Kansas	95.0	95.0	94.9	95.9
Kentucky	87.3	84.6	92.0	90.3
Louisiana	80.8	80.2	98.9	97.9
Maine	92.6	89.4	92.7	90.8
Maryland	91.6	89.5	97.6	95.4
Massachusetts	90.5	87.6	91.4	88.5
Michigan	90.8	91.0	93.0	90.6
Minnesota	91.5	92.2	96.0	97.1
Mississippi	90.4	91.3	90.1	91.0
Missouri	92.9	93.1	97.4	96.2
Montana	89.5	85.8	92.7	89.9
Nebraska	79.7	79.8	81.4	84.8
Nevada	89.8	89.6	90.6	89.7
New Hampshire	97.0	96.4	98.2	98.2
New Jersey	85.9	83.0	94.9	94.5
New Mexico	92.9	89.9	93.9	93.5
New York	88.9	85.4	92.6	91.6
North Carolina	90.7	91.1	95.7	95.5
North Dakota	88.8	82.9	90.5	87.5
Ohio	92.1	88.6	90.5	85.5
Oklahoma	91.5	90.3	94.4	94.0
Oregon	95.2	94.7	94.3	93.5
Pennsylvania	89.8	92.0	97.6	99.4
Rhode Island	92.4	92.2	95.4	94.7
South Carolina	96.2	92.2	97.4	97.5
South Dakota	85.4	81.4	90.9	91.2
Tennessee	94.5	90.8	92.1	86.3
Texas	93.6	95.3	90.5	87.2
Utah	93.9	94.6	95.6	96.0
Vermont	92.7	91.9	95.1	95.6
Virginia	91.7	91.7	90.2	90.6
Washington	96.0	96.2	97.8	96.8
West Virginia	89.0	85.4	95.2	93.6
Wisconsin	92.0	92.0	94.0	96.4
Wyoming	93.9	87.2	96.2	95.0

As shown in Table VI-2, the weighted response rates for private schools with no religious affiliation and those affiliated with non-Catholic denominations were significantly lower than those for public schools and Catholic schools.⁴ For some of these nonresponse cases, the school reported on the SASS Private School Questionnaire (SASS-3B) that there was a school library but reported in the Library Media Center Questionnaire (LS-1B) that there was no library. Because the Library Survey response was made consistent with the SASS response, cases that had been classified as out of scope for the survey became noninterviews. There are several possible reasons for the inconsistent responses to SASS and the Library Survey—perhaps (1) the school had a library but the respondent did not think it met the definition on the front of the Library Media Center Questionnaire or decided to avoid filling the Library Survey questionnaires by reporting there was no library, or (2) the school had a noncentralized collection of books or other media in its classrooms and this collection, which does not fit the definition of a library media center on the Library Survey questionnaire, was erroneously reported as a library on the SASS school questionnaire.

Table VI-2.—Unweighted and weighted response rates by school affiliation for private school library media centers and head librarians

School affiliation	Library media centers		Librarians	
	Unweighted	Weighted	Unweighted	Weighted
United States....	77.7%	70.7%	83.9%	76.5%
Catholic.....	84.9	81.8	88.6	85.6
Other religious	71.8	59.3	75.7	57.8
Nonsectarian	78.7	69.5	90.1	88.3

Table VI-3.—Survey response rates for Bureau of Indian Affairs (BIA) school library media centers and head librarians

	Library media centers	Librarians
United States.....	90.5%	88.8%

⁴Because the data collected may not be representative of these types of schools, they are not presented by affiliation category in the data tables.

**B. Item
Response
Rates**

Tables VI-4 and VI-5 summarize the item response rates for the components of the Library Survey. Tables VI-6 and VI-7 display the unweighted item response rates for the items used in this report. The response rate for each item is defined as the number of cases where respondents answered the question divided by the universe for the item (i.e., the number of respondents who should have answered the question). The response rates for all items used in this report were above 75 percent. These response rates are unweighted and do not reflect additional response loss due to respondents' refusal to participate in the survey.

Table VI-4.—Summary of unweighted item response rates by questionnaire

Questionnaire	Range of item response rates	Percent of items with a response rate of 90% or more	Percent of items with a response rate of less than 75%
Library Media Centers			
Public (LS-1A).....	57-99%	81%	5%
Private (LS-1B).....	66-99	80	4
Indian (LS-1C) ¹	61-100	82	1
Librarians			
Public (LS-2A).....	61-100	87	6
Private (LS-2B).....	50-100	80	11
Indian (LS-2C) ¹	56-100	87	5

¹The Indian School Library Media Center Questionnaire (LS-1C) and the Indian School Library Media Specialist/Librarian Questionnaire (LS-2C) were mailed to schools funded by the Bureau of Indian Affairs (BIA) if they were not operated by a local school district. Sixteen BIA schools operated by school districts were sent the public school library and librarian questionnaires (LS-1A and LS-2A).

Table VI-5.—Items with unweighted response rates of less than 75 percent

Questionnaire	Items ²
Library Media Centers	
Public (LS-1A).....	5a(other AV), 5b(subscriptions), 5b(other AV), 5c(other AV), 25
Private (LS-1B).....	5b(subscriptions), 5b(other AV), 5c(video), 25
Indian (LS-1C) ¹	25
Librarians	
Public (LS-2A).....	14d(Ph.D.), 18b(5), 18b(6), 18b(7), 18b(8), 18b(9), 18b(10)
Private (LS-2B).....	14c(ed.spec.), 14d(ed.spec.), 14c(Ph.D.), 14d(Ph.D.), 18b(1), 18b(4), 18b(5), 18b(6), 18b(7), 18b(8), 18b(9), 18b(10), 26d
Indian (LS-2C) ¹	18b(4), 18b(6), 18b(7), 18b(8), 18b(9), 18b(10)

¹The Indian School Library Media Center Questionnaire (LS-1C) and the Indian School Library Media Specialist/Librarian Questionnaire (LS-2C) were mailed to schools funded by the Bureau of Indian Affairs (BIA) if they were not operated by a local school district. Sixteen BIA schools operated by school districts were sent the public school library and librarian questionnaires (LS-1A and LS-2A).

²The wording of these questionnaire items can be found in *SASS and PSS Questionnaires: 1993-94*, U.S. Department of Education, National Center for Education Statistics, NCES 94-674, or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

Table VI-6.—Unweighted item response rates for library media centers

Item description	Variable	Response rate		
		Public	Private	BIA
Item 1a. Number of state-certified library media specialists in library media center (LMC)				
Full time	M012	98.7%	99.3%	97.9%
At least 3/4 time but less than full time.....	M013	98.8	99.3	99.2
At least 1/2 time but less than 3/4 time	M014	98.7	99.3	99.2
At least 1/4 time but less than 1/2 time	M015	98.8	99.3	99.2
Less than 1/4 time	M016	98.7	99.3	99.2
Total	M017	98.9	99.3	97.2
Item 1b. Number of professional staff in LMC who were not certified as library media specialists				
Full time.....	M019	98.0	97.6	98.6
At least 3/4 time but less than full time.....	M020	98.1	97.5	100.0
At least 1/2 time but less than 3/4 time	M021	98.1	97.5	100.0
At least 1/4 time but less than 1/2 time	M022	98.1	97.5	100.0
Less than 1/4 time	M023	98.2	97.5	98.6
Total	M024	98.1	98.2	97.9
Item 1c. Number of other paid LMC staff.....				
Full time	M026	99.3	98.8	99.3
At least 3/4 time but less than full time.....	M027	99.3	98.8	99.3
At least 1/2 time but less than 3/4 time	M028	99.4	98.8	99.3
At least 1/4 time but less than 1/2 time	M029	99.3	98.8	99.3
Less than 1/4 time	M030	99.3	98.8	99.3
Total	M031	99.6	99.1	99.3
Item 5a(1). Number of books acquired during 1992-93 school year for LMC	M050	87.8	85.4	86.7
Item 5b(1). Number of books held at end of 1992-93 school year	M051	81.0	76.7	78.3
Item 5c(1). Amount of expenditure for books during 1992-93 school year	M052	89.0	88.7	82.5
Item 5c(2). Amount of expenditure for serial subscriptions during 1992-93 school year.....	M055	86.6	81.1	83.9
Item 5c(3). Amount of expenditure for video materials during 1992-93 school year	M058	78.9	74.5	83.2
Item 6. Amount of total expenditure for library media center materials during 1992-93 school year	M068	90.9	86.2	89.5
Item 7a. Amount of expenditure for microcomputer hardware during 1992-93 school year for LMC	M069	92.1	94.5	92.3
Item 7b. Amount of expenditure for other audio-visual equipment during 1992-93 school year for LMC	M070	88.8	88.5	93.0
Item 7c. Amount of expenditure for online database searching and electronic communications for LMC	M071	92.7	93.5	92.3
Item 12a. Whether LMC had a telephone	M108	99.3	98.8	99.3
Item 12c. Whether LMC had a computer with modem....	M110	98.7	98.0	97.9
Item 12e. Whether LMC had an automated circulation system.....				
Item 12g. Whether LMC had online database searching	M114	98.6	97.7	97.9
Item 12j. Whether LMC had connection to Internet	M117	98.6	98.2	97.9
Item 21a. How classes in LMC were scheduled	M145-M148	98.0	97.5	99.3
Item 24. Number of times per week LMC was used by				
Large groups of 2 or more classes	M150	96.2	95.6	98.6
Individual classes.....	M151	97.2	96.1	98.6
Small groups (less than one class)	M152	94.2	93.2	96.5
Special student groups	M153	95.6	94.4	97.2

Table VI-7.—Unweighted item response rates for library media specialists/librarians

Item description	Variable	Response rate		
		Public	Private	BIA
Item 5a. Whether librarian had another assignment at sample school.....	L022	99.6%	100.0%	100.0%
Item 5b. Librarian's other assignment at sample school	L023	99.0	99.5	93.3
Item 12a. Whether librarian had bachelor's degree	L036	99.8	99.2	99.1
Item 13a. Whether librarian had master's degree .	L041	99.9	99.9	100.0
Item 17a. Whether librarian was certified as library media specialist by state where school is located.....	L083	100.0	100.0	100.0
Item 17b. Type of certification held by librarian .	L084	99.0	98.9	98.8
Item 23a. Whether respondent planned to continue as a school librarian	L141	99.2	99.1	100.0
Item 26b(1). School (or school district) salary.....	L155	91.9	86.3	98.2
Item 27. Benefits provided by school or school district.....	L165-L174	98.6	97.8	99.1

VII. Edit Procedures

A. Clerical Edit

Questionnaires returned by individual respondents and those completed by field representatives in telephone followup were sent to the Census Bureau processing unit in Jeffersonville, Indiana. Upon receipt, clerks assigned codes to each questionnaire to indicate its status—e.g., complete interview, refusal, school does not have a library. Then they performed a general clerical edit that included reviewing all entries for legibility and making corrections, such as changing 'one' to '1' and rounding fractions to whole numbers.

After editing, the questionnaires were batched by type and by interview status (i.e., interviews, noninterviews, out of scope for the survey) for keying. Data entry personnel were instructed to correct all errors identified during the keying operation and to refer problem cases to their supervisor. To assure the quality of the data, all keying was independently verified at the 100 percent level.

B. Preliminary ISR Classification

After data keying, the files of keyed data were merged with those from the computer-assisted telephone interviews (CATI). Each component of the survey — public school library media centers, private school librarians, etc. — was retained as a separate file.

The next step in processing was to make a preliminary determination of each case's interview status (ISR) — i.e., whether it was an interview, a noninterview, or was out of scope for the survey. In general, those cases with "out-of-scope" check-in codes (assigned by clerks) or "out-of-scope" outcome codes (assigned by CATI interviewers) were classified as out of scope (ISR=3) for the preliminary ISR. Otherwise, cases with data entries were classified as interviews (ISR=1) and those with no data were classified as noninterviews (ISR=2).

C. Computer Edit

After the preliminary ISR classification, each file was submitted to a computer edit. This edit consisted of a range check, a consistency edit, and a blanking edit.

- The *range check* deleted entries that were outside the range of acceptable values.
- The *consistency edit* identified inconsistent entries within each record and, whenever possible, corrected them; if they could not be corrected, the entries were deleted. These inconsistencies could have been (1) within items (e.g., if "Yes" was marked in item 13a of the librarian questionnaire, indicating that the respondent had earned a master's degree, but the year recorded in item 13c was 1995 or later) or (2) between items (e.g., if the respondent marked "Part-time library media specialist/librarian" in item 2 of the librarian questionnaire, but marked "Full-time" in item 3). The consistency edit also filled some items where data were missing or incomplete by using other information on the data record (e.g., if the amount spent for microcomputer hardware was not reported in item 7a of the library questionnaire and the entry in item 11a indicated that the school did not have any microcomputers, zero (0) was entered in item 7a during the consistency edit).
- The *blanking edit* deleted extraneous entries and assigned the "not answered" (.N) code to items that should have been answered but were not. For example, if a respondent answered "No" to item 10a of the public school librarian questionnaire, indicating that he/she had never worked as a librarian in a private school, and recorded "0" in item 10b for number of years, the blanking would delete the "0" entry in item 10b.

Only records classified as interviews in the preliminary ISR were edited.

D. Final Interview Status Edit

After the range check, consistency edit, and blanking edit were complete, the records were put through an edit to make a final determination of whether the case was eligible for the survey and, if so, whether sufficient data had been collected for the case to be classified as

an interview. A final interview status recode (ISR) value was assigned to each case as a result of the edit.

1. Library Media Center Questionnaires (LS-1A, 1B, and 1C)

- a. A case was classified as **out-of-scope** (ISR=3) if:
 - The school (for which the library media center was selected) was classified as out-of-scope;⁵ or
 - The school did not have a library media center.
- b. A case was classified as an **interview** (ISR=1) if:
 - Neither of the conditions for out-of-scope cases was met; and
 - At least two of the following were reported — number of certified library media specialists, number of professionals working in the library who were not certified library media specialists, number of other paid employees working in the library (clerks, aides, etc.), whether unpaid volunteers worked in the library; and
 - There were values for at least 30 percent of the minimum items that should be filled for the library.
- c. A case was classified as a **noninterview** (ISR=2) if the conditions for out-of-scope and interview cases were not met.

2. Library Media Specialist/Librarian Questionnaires (LS-2A, 2B, and 2C)

- a. A case was classified as **out-of-scope** (ISR=3) if:
 - The school named on the questionnaire was classified as out-of-scope;⁵ or
 - The school did not have a library media center; or
 - The school did not have a librarian; or
 - The librarian's main assignment at the school was some other position (e.g., if his/her main assignment was classroom teacher, guidance counselor, or school secretary).

⁵A school was classified as out of scope if (1) it was no longer in operation, (2) it did not serve students in any of grades 1-12 or comparable ungraded levels, (3) the institution selected as a school was not a school (e.g., if it was a tutoring service or if it was an education agency or school district), or (4) the school was not in the sector for which it was selected (e.g., if a school selected as a private school was found to be a public school).

- b. A case was classified as an **interview** (ISR=1) if:
- None of the conditions for out-of-scope cases was met; and
 - The respondent reported the year he/she began working as an elementary or secondary school librarian; and
 - The respondent answered at least one part of the educational background section; and
 - The respondent reported whether or not he/she was certified as a library media specialist; and
 - There were values for at least 30 percent of the minimum items that a respondent should fill.
- c. A case was classified as a **noninterview** (ISR=2) if the conditions for out-of-scope and interview cases were not met.

Table VII-1 shows the preliminary ISR and final ISR counts for each Library Survey component and the percent of change for each ISR classification.

Table VII-1.—Preliminary and final ISR counts and percents of change

File	Sample size	Preliminary ISR			Final ISR			Percent change		
		Interviews	Non-interviews	Out-of-scope	Interviews	Non-interviews	Out-of-scope	Interviews	Non-interviews	Out-of-scope
Libraries										
Public ..	5,026	4,321	252	453	4,242	413	371	- 1.8%	+ 63.9%	- 18.1%
Private .	2,536	1,706	245	585	1,607	460	469	- 5.8%	+ 87.8%	- 19.8%
Indian ¹	160	134	9	17	127	15	18	- 5.2%	+ 66.7%	+ 5.9%
Librarians										
Public ..	5,026	4,029	239	758	3,903	272	851	- 3.1%	+ 13.8%	+ 12.3%
Private .	2,536	1,226	265	1,045	1,138	218	1,180	- 7.2%	- 17.7%	+ 12.9%
Indian...	160	107	10	43	98	13	49	- 8.4%	+ 30.0%	+ 14.0%

¹The Indian School Library Media Center Questionnaire (LS-1C) and the Indian School Library Media Specialist/Librarian Questionnaire (LS-2C) were mailed to schools funded by the Bureau of Indian Affairs (BIA) if they were not operated by a local school district. Sixteen BIA schools operated by school districts were sent the public school library and librarian questionnaires (LS-1A and LS-2A).

VIII. Imputation

For questionnaire items that should have been answered but were not, values were imputed by (1) using data from other items on the questionnaire, (2) extracting data from a related component of the Library Survey or the Schools and Staffing Survey (SASS) (for example, using data from a SASS school record to impute missing values on the record for the school's library media center), and (3) extracting data from the record for a sample case with similar characteristics

(commonly known as the "hot-deck" method for imputing for item nonresponse⁶).

For some incomplete items, the entry from another part of the questionnaire, a related questionnaire, or a similar sample case (donor) was directly imputed to complete the item; for others the entry was used as part of an adjustment factor with other data on the incomplete record. For example, if a respondent did not report whether the library media center had any unpaid volunteers in item 4b, the response (Yes or No) for the library media center for a similar school was imputed to item 4b of the incomplete record. However, if a respondent had answered "Yes" to item 4a but had not reported the number of student volunteers in item 4b, the ratio of the number of student volunteers to total enrollment for a similar school was used with the enrollment at the school for which item 4b of the library media center record was incomplete to impute an entry to item 4b (i.e., LMC#1 item 4b = enrollment at school where LMC#1 is located multiplied by ratio of LMC(donor) item 4b to enrollment of school where LMC(donor) is located).

The procedures described above were carried out by computer processing. However, for a few items there were cases where entries were clerically imputed. The data record, the records for related sample cases, and, in some cases, the questionnaire were reviewed and an entry consistent with the information from those sources was imputed. This procedure was used when (1) there was no suitable record to use as a donor, (2) the computer method produced an imputed entry that was outside the acceptable range for the item, or (3) there were very few cases where an item was unanswered (usually less than 10).

Values were imputed to items with missing data within records classified as interviews (ISR=1). Noninterview adjustment factors were used during the weighting process to compensate for data that were missing because the sample case was a noninterview (ISR=2).

⁶Kalton, G. and Kasprzyk, D. (1982), "Imputing for Missing Survey Responses," *Proceedings of the Section on Survey Research Methods*, American Statistical Association, 22-31; Kalton, G. (1983), *Compensating for Missing Survey Data*. Ann Arbor: Survey Research Center, University of Michigan; Kalton, G. and Kasprzyk, D. (1986), "The Treatment of Missing Survey Data," *Survey Methodology*, Vol. 12, No.1, pp. 1-16; Little, R. J. A., and Rubin, D. B. (1987), *Statistical Analysis with Missing Data*, John Wiley and Sons; Madow, W. G., Olkin, I., and Rubin, D. B. (eds.) 1983, *Incomplete Data in Sample Surveys*, Vols. 1, 2, and 3, New York, Academic Press.

A. Library Media Center Questionnaires

Data were imputed to items with missing values in the following three stages.

1. First Stage Imputation for Library Media Centers

In the first stage, items with missing values were completed whenever possible by using information about the school library from the following sources:

- *Other questionnaire items on the library record* - Based on entries from related items on the library record, some assumptions were made about how the respondent probably should have answered items with missing values. For example, if item 1a (number of certified library media specialists) was unanswered and item 2 indicated that none of the library's staff had a bachelor's or higher degree, the assumption was made that the library had no certified library media specialists and zero was imputed to item 1a. Items used in this report that may have been completed by using data from other Library Media Center Questionnaire (LS-1A/1B/1C) entries are listed in Table VIII-1.

Table VIII-1.—Library Media Center Questionnaire items imputed by using other data on record

Imputed item	Source items
Item 1a. Number of state-certified library media specialists	Item 1b. Number of library professional staff who were not certified as library media specialists Item 2. Number of library professional staff by college degree
Item 1b. Number of library professional staff who were not certified as library media specialists	Item 1a. Number of state-certified library media specialists
Item 5. 1992-93 library media center collection, acquisitions, and expenditures	Item 6. Total expenditure for library media center materials Item 11. Whether school has microcomputers Item 12. Whether library media center has computer-related equipment or services Item 27. Circulation policies and availability of selected library media center materials
Item 6. Total expenditure for library media center materials	Item 5. 1992-93 library media center collection, acquisitions, and expenditures
Item 7. Expenditure for microcomputer hardware, other audio-visual equipment, and online services	Item 11. Whether school has microcomputers Item 12. Whether library media center has computer-related equipment or services Item 27. Circulation policies and availability of selected library media center materials
Items 12c,e,g, and j. Whether library media center has computer-related equipment or services	Item 11. Whether school has microcomputers

- *The matching Library Media Specialist/Librarian Questionnaire (LS-2A/2B/2C)* - If items related to professional staff were unanswered on the library record, information from the matching librarian questionnaire was used to complete the items whenever possible. For example, if item 2 (degrees earned by professional staff) was unanswered, the library had only one professional staff member, and the LS-2 indicated the he/she had a master's degree,

then "1" was imputed to part c of item 2 and zero was imputed to parts a, b, and d. Items 1a, 1b, 2, and 3 were imputed by using information from the LS-2.

- *The matching SASS School Questionnaire (SASS-3A/3B/3C)* - For a few items with missing values, data from the matching school record were used to impute the entries. For example, if item 1a was unanswered and entries on the school record indicated that the school did not have a librarian, zero was imputed to item 1a of the library record. These Library Media Center Questionnaire (LS-1) items were completed with data from the matching SASS school record: Items 1a, 1b, and 1d (LS-1B only).

2. Second Stage Imputation for Library Media Centers

In general, the second stage of imputation filled unanswered items by using data from the record for a library of a similar school, i.e., a school that was the same level, of similar size, located in same type of community, etc. Variables that described certain characteristics of the schools (e.g., enrollment size and instructional level) were copied from the matching school record. In addition, a variable that categorizes the size of the library was created by using the number of books held at the end of the 1992-93 school year (recorded in item 5 of the Library Media Center Questionnaire). These school variables and the library variable were used to sort the library records and to match incomplete records to those with complete entries (donors).

For some items, such as item 8 (respondent's assessment of quality of library's collection), data were directly copied to the record with the missing value. For others, however, such as item 25 (number of students who used library in a week), entries on the donor record were used as factors along with other information on the incomplete record to fill the items with missing values. For example, if the number of subscriptions acquired was reported in item 5 for Library#1 but the number held was not, the donor's ratio of subscriptions held to subscriptions acquired was used with the number of subscriptions acquired by Library#1 to impute the number held by Library#1.

The library records were sorted as follows:

- *Public school library media centers (LS-1A)* - The variables used to sort the LS-1A records and to match incomplete records with donors are defined in Table VIII-2.

- The LS-1A records were sorted so that records for libraries of similar schools were near each other on the file. They were sorted in this order: STATE / ENR / LEVEL / URB / M051. M051 was the number of books held in the library at the end of the 1992-93 school year.
- Table VIII-3 shows the variables that were used to match incomplete records and donors for the LS-1A items used in this report that were imputed during the second stage. The order of collapse for the variables is also shown in Table VIII-3.

Table VIII-2.—Public school library media center (LS-1A) imputation variables

Variable Name	Description	Values
ENR	Enrollment size code for school	1 = 1-299 students 2 = 300-599 3 = 600 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
TYPE	Type of school	1 = Regular 2 = Special education 3 = Vocational education 4 = Alternative 5 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown

Table VIII-3.—Public school library media center (LS-1A) matching variables and collapse ordering

Items ¹	Matching variables	Order of collapse
12.....	ENR, BKCLSZ, LEVEL	LEVEL, BKCLSZ, ENR
5(1).....	ENR, LEVEL, TYPE	TYPE, LEVEL, ENR
5(2)-5(6), 6, 7.....	ENR, BKCLSZ, LEVEL	LEVEL, BKCLSZ, ENR
1c	ENR, LEVEL, BKCLSZ	BKCLSZ, LEVEL, ENR
21, 24.....	ENR, LEVEL, BKCLSZ	BKCLSZ, LEVEL, ENR

¹The data collected in these items are described in Table VI-6. For actual wording, see *SASS and PSS Questionnaires: 1993-94*, U.S. Department of Education, National Center for Education Statistics (NCES 94-674) or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

- *Private school library media centers (LS-1B)* - The variables used to sort the LS-1B records and to match incomplete records with donors are defined in Table VIII-4.

The LS-1B records were sorted so that records for libraries of similar schools were near each other on the file. They were sorted in this order: AFFLG / ENR / LEVEL / URB / M051. M051 was the number of books held in the library at the end of the 1992-93 school year.

- Table VIII-5 shows the variables used to match incomplete records and donors for LS-1B items used in this report that were imputed during the second stage. The order of collapse for the variables is also shown in Table VIII-5.

Table VIII-4.—Private school library media center (LS-1B) imputation variables

Variable name	Description	Values
AFFLG	General affiliation of school	1 = Catholic 2 = Other religious affiliation 3 = No religious affiliation 4 = Unknown
ENR	Enrollment size code for school	1 = 1-149 students 2 = 150-399 3 = 400 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown

Table VIII-5.—Private school library media center (LS-1B) matching variables and collapse ordering

Items ¹	Matching variables	Order of collapse
12	AFFLG, ENR, LEVEL	LEVEL, ENR, AFFLG
5(1)	ENR, LEVEL, AFFLG	AFFLG, LEVEL, ENR
5(2)-5(6), 6, 7, 1c	AFFLG, ENR, BKCLSZ, LEVEL	LEVEL, BKCLSZ, ENR, AFFLG
21, 24	BKCLSZ, ENR, LEVEL	LEVEL, ENR, BKCLSZ

¹The data collected in these items are described in Table VI-6. For actual wording, see *SASS and PSS Questionnaires: 1993-94*, U.S. Department of Education, National Center for Education Statistics (NCES 94-674) or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

- *Indian school⁷ library media centers (LS-1C)* - Because there were only 127 completed records (interviews) for Indian school libraries and the item response rates were high for most items, the second stage of imputation was done clerically. Other than the use of a variable that indicated whether the school was operated by BIA (BIAOP), the methodology was the same as that used to impute items on the LS-1A and LS-1B files, which were imputed by computer. For records where items had missing values, similar records (libraries for schools of same BIA type, similar size, level, etc.) were selected as donors. The variables used to clerically match incomplete records and donors were STATE, ENR, LEVEL, BKCLSZ, and BIAOP, which are defined in Table VIII-6.

Table VIII-6.—Indian school library media center (LS-1C) imputation variables

Variable Name	Description	Values
ENR	Enrollment size code for school	1 = 1-299 students 2 = 300-599 3 = 600 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
TYPE	Type of school	1 = Regular 2 = Special education 3 = Vocational education 4 = Alternative 5 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown
BIAOP	Type of BIA school	1 = School is funded and operated by the Bureau of Indian Affairs (BIA) 2 = School is funded by the BIA but operated by a tribe or other organization

⁷Within this report, "Indian school" refers to schools funded by the Bureau of Indian Affairs (BIA) that were not operated by a local education agency (LEA). These schools may be operated by the BIA, a tribe, or a private contractor.

3. Clerical Imputation for Public and Private School Library Media Centers

These items were clerically imputed for some cases with missing values: 1, 2, 3, 4, 5, 6, 7, and 25.

B. Library Media Specialist/Librarian Questionnaires

Data were imputed to items with missing values in the three stages described below.

1. First Stage Imputation for Librarians

In the first stage, items with missing values were completed whenever possible by using information about the school librarian from these sources:

- *Other questionnaire items on the librarian record* - Based on entries from related items on the librarian record, some assumptions were made about how the respondent should have answered items with missing values. For example, if the respondent did not report whether he/she was certified (in item 17a) and item 12 indicated that he/she did not have a bachelor's degree, the assumption was made that the respondent was not a certified library media specialist and "No" was imputed to item 17a. Items used in this report that may have been completed by using data from other Library Media Specialist/Librarian Questionnaire (LS-2A/2B/2C) entries are listed in Table VIII-7.

Table VIII-7.—Library Media Specialist/Librarian Questionnaire items imputed by using other data on record

Imputed item	Source items
Item 5a. Whether librarian had another assignment at sample school	Item 1. Whether librarian was also a classroom teacher at the sample school
Item 5b. Librarian's other assignment at the sample school	Item 1. Whether librarian was also a classroom teacher at the sample school
Item 12a. Whether librarian had bachelor's degree	Item 13a. Whether librarian had master's degree Item 14b. Whether librarian had education specialist or professional diploma or had a Ph.D.
Item 13a. Whether librarian had master's degree	Item 14b. Whether librarian had education specialist or professional diploma or had a Ph.D.
Item 17a. Whether librarian was certified as a library media specialist	Item 12a. Whether librarian had a bachelor's degree

- *The matching Library Media Center Questionnaire (LS-1A/1B/1C)* - If items related to educational background were unanswered on the librarian record, information from the matching library questionnaire was used to complete the items whenever possible. For example, if item 12a (whether respondent has bachelor's degree) were unanswered and the LS-1 indicated that all professional staff had a bachelor's degree or higher, "Yes" was imputed to item 12a of

the librarian record. Items 12a, 13a, 14, and 17 were imputed by using information from the LS-1.

2. Second Stage Imputation for Librarians

In general, the second stage of imputation filled unanswered items by using data from the record for a librarian at a similar school, i.e., a school that was the same level, of similar size, located in same type of community, etc. Variables that described certain characteristics of the schools (e.g., enrollment size and instructional level) were copied from the matching school record. In addition, variables that described some characteristics of the librarian (e.g., age and highest degree earned) were created from the LS-2 data. These school and librarian variables were used to sort the librarian records and to match incomplete records to those with complete entries (donors).

- For some items, such as item 21 (respondent's attitudes about work), data were directly copied to the record with the missing value. For others, however, such as item 11 (number of years that respondent had worked as a school librarian), entries on the donor record were used as factors along with other information on the incomplete record to fill the items with missing values. For example, if item 11 was unanswered for Librarian #1, the donor's ratio of years worked to number of years since first job as school librarian began would have been used with the number of years since Librarian#1 began his/her first job as a school librarian.

The librarian records were sorted as follows:

- *Public school librarians (LS-2A)* - The variables used to sort the LS-2A records and to match incomplete records with donors are defined in Table VIII-8.
- The LS-2A records were sorted so that records for librarians at similar schools were near each other on the file. They were sorted in this order: STATE / LEVEL / ENR / URB / LEANUMBR / L180. LEANUMBR was a code that identified the school district for which the respondent worked and L180 was the respondent's year of birth.

Table VIII-9 shows the variables that were used to match incomplete records and donors for the LS-2A items used in this report that were imputed during the second stage. The order of collapse for the variables is also shown in Table VIII-9.

Table VIII-8.—Public school library media specialist/librarian (LS-2A) imputation variables

Variable name	Description	Values
ENR	Enrollment size code for school	1 = 1-299 students 2 = 300-599 3 = 600 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown
MINEN	Percent minority enrollment at school	1 = 0-5.4% are of minority race or ethnic origin 2 = 5.5-20.4% 3 = 20.5-50.4% 5 = 50.5-100% 4 = Unknown
AGE	Respondent's age category	1 = Less than 30 years old 2 = 30-45 3 = 46-60 4 = More than 60
LIBEXP	Years as a librarian in all schools	1 = 1-3 years 2 = 4-15 3 = 16-30 4 = More than 30 5 = Unknown
HIGHDEG	Highest degree earned by respondent	1 = Associate's degree or no degree 2 = Bachelor's degree 3 = Master's degree or higher
FUL-PART	Full-time/part-time status	1 = Full-time librarian at this school 2 = Part-time librarian at this school 3 = Unknown

Table VIII-9.—Public school library media specialist/librarian (LS-2A) matching variables and collapse ordering

Items ¹	Matching variables	Order of collapse
5	ENR, LEVEL, BKCLSZ, URB	URB, BKCLSZ, LEVEL, ENR
23	AGE, LIBEXP, LEVEL, URB	URB, LEVEL, LIBEXP, AGE
17b	HIGHDEG, LEVEL, LIBEXP, AGE	AGE, LIBEXP, LEVEL, HIGHDEG
26, 27	STATE, HIGHDEG, LEVEL, LIBEXP, FUL-PART, URB	URB, FUL-PART, LIBEXP, LEVEL, HIGHDEG

¹The data collected in these items are described in Table VI-7. For actual wording, see *SASS and PSS Questionnaires: 1993-94*, U.S. Department of Education, National Center for Education Statistics (NCES 94-674) or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

- *Private school librarians (LS-2B)* - The variables used to sort the LS-2B records and to match incomplete records with donors are defined in Table VIII-10.

The LS-2B records were sorted so that records for librarians at similar schools were near each other on the file. They were sorted in this order: AFFLG / LEVEL / ENR / URB / L180. L180 was the respondent's year of birth.

- Table VIII-11 shows the variables that were used to match incomplete records and donors for the LS-2B items used in this report that were imputed during the second stage. The order of collapse for the variables is also shown in Table VIII-11.
- *Indian school⁸ librarians (LS-2C)* - Because there were only 98 complete records (interviews) for Indian school librarians and the item response rates were high for most items, the second stage of imputation was done clerically. Other than the use of a variable that indicated whether the school was operated by BIA (BIAOP), the methodology was the same as that used to impute items on the LS-2A file, which was imputed by computer. For records where items had missing values, similar records (librarians of similar age and educational background who worked at schools of same BIA type, similar size, level, etc.) were selected as donors. The variables used to clerically match incomplete records and donors were STATE, ENR, LEVEL, BKCLSZ, AGE, HIGHDEG, FUL-PART , and BIAOP, which are defined in Table VIII-12.

⁸Within this chapter, "Indian school" refers to schools selected to receive the SASS-3C school questionnaire; i.e., schools funded by the Bureau of Indian Affairs (BIA) that were not operated by a local education agency (LEA). These schools may be operated by the BIA, a tribe, or a private contractor.

Table VIII-10.—Private school library media specialist/librarian (LS-2B) imputation variables

Variable name	Description	Values
AFFLG	General affiliation of school	1 = Catholic 2 = Other religious affiliation 3 = No religious affiliation 4 = Unknown
ENR	Enrollment size code for school	1 = 1-149 students 2 = 150-399 3 = 400 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown
MINEN	Percent minority enrollment at school	1 = 0-5.4% are of minority race or ethnic origin 2 = 5.5-20.4% 3 = 20.5-50.4% 5 = 50.5-100% 4 = Unknown
AGE	Respondent's age category	1 = Less than 30 years old 2 = 30-45 3 = 46-60 4 = More than 60
LIBEXP	Years as a librarian in all schools	1 = 1-3 years 2 = 4-15 3 = 16-30 4 = More than 30 5 = Unknown
HIGHDEG	Highest degree earned by respondent	1 = Associate's degree or no degree 2 = Bachelor's degree 3 = Master's degree or higher
FUL-PART	Full-time/part-time status	1 = Full-time librarian at this school 2 = Part-time librarian at this school 3 = Unknown

Table VIII-11.—Private school library media specialist (LS-2B) matching variables and collapse ordering

Items ¹	Matching Variables	Order of Collapse
5	AFFLG, ENR, LEVEL, BKCLSZ	BKCLSZ, LEVEL, ENR
23	AFFLG, AGE, LIBEXP, LEVEL	LEVEL, LIBEXP, AGE
17b	AFFLG, HIGHDEG, LEVEL, AGE	AGE, LEVEL, HIGHDEG
26	AFFLG, ENR, HIGHDEG, LIBEXP, FUL-PART, URB	URB, FUL-PART, LIBEXP, HIGHDEG, ENR

¹The data collected in these items are described in Table VI-7. For actual wording, see *SASS and PSS Questionnaires: 1993-94*, U.S. Department of Education, National Center for Education Statistics (NCES 94-674) or *1993-94 Schools and Staffing Survey: Data File User's Manual*, U.S. Department of Education, National Center for Education Statistics.

Table VIII-12.—Indian school library media specialist/librarian (LS-2C) imputation variables

Variable name	Description	Values
ENR	Enrollment size code for school	1 = 1-299 students 2 = 300-599 3 = 600 or more 4 = Unknown
LEVEL	Instructional level of school	1 = Elementary 2 = Combined or ungraded 3 = Secondary
URB	Type of community where school is located	1 = Large central city of SMSA 2 = Medium city of SMSA 3 = Urban fringe of a large city 4 = Urban fringe of a medium city 5 = Large town, not in SMSA 6 = Small town, not in SMSA 7 = Rural 8 = Unknown
BKCLSZ	Library book collection size	1 = 1-5,000 books 2 = 5,001-10,000 3 = 10,001-15,000 4 = 15,001-20,000 5 = More than 20,000 6 = Unknown
MINEN	Percent minority enrollment at school	1 = 0-5.4% are of minority race or ethnic origin 2 = 5.5-20.4% 3 = 20.5-50.4% 5 = 50.5-100% 4 = Unknown
AGE	Respondent's age category	1 = Less than 30 years old 2 = 30-45 3 = 46-60 4 = More than 60
LIBEXP	Years as a librarian in all schools	1 = 1-3 years 2 = 4-15 3 = 16-30 4 = More than 30 5 = Unknown
HIGHDEG	Highest degree earned by respondent	1 = Associate's degree or no degree 2 = Bachelor's degree 3 = Master's degree or higher
FUL-PART	Full-time/part-time status	1 = Full-time librarian at this school 2 = Part-time librarian at this school 3 = Unknown
BIAOP	Type of BIA school	1 = School is funded and operated by the Bureau of Indian Affairs 2 = School is funded by the BIA but operated by a tribe or other organization

3. Clerical Imputation for Public and Private School Librarians

These items were clerically imputed for some cases with missing values: 10a, 14, 18, 26, 28.

C. Imputation Flags

Entries imputed to the Library Survey records are identified by flags that denote the stage or type of imputation: 2 = stage 1 imputation (use of other questionnaire data, data from related questionnaires, etc.); 3 =

stage 2 imputation (use of donor); 4 = clerical imputation; 0 = not imputed.

The variable names for these flags consist of F_ (*F underscore*) and the variable name for the data entry. For example, the flag for variable M050 on the library media center file would be named F_M050.

IX. Weighting

The sample library media centers and librarians in this survey were weighted to produce state and national estimates for the public sector, religious affiliation and national estimates for the private sector, and national estimates for Bureau of Indian Affairs schools.

The final weight assigned to each sample library and librarian is the product of the school's basic weight (the inverse of the probability of the school's selection for SASS) multiplied by factors that adjust the basic weight to account for the subsampling of SASS schools for the Library Survey, unusual circumstances that affected the school's probability of selection (e.g., the school having merged with another school or being listed twice on the school universe files), schools that did not respond to the Library Survey or to SASS, the weighted count of schools in SASS that reported having a library, and the weighted count of schools in SASS that reported they did not have a library.⁹

Replicate weights for variance estimation

The library and librarian replicate weights are generally equal to the school bootstrap replicate weight times the conditional probability of selection given the school is selected in the SASS school sample. These adjusted bootstrap replicate weights are provided on the file.

Balanced half sample replication (BHR) methodology for estimating variances was employed rather than bootstrap in two instances. First, if

⁹For a detailed description of the weighting process, see Abramson, R., Cole, C., Fondelier, S., Jackson, B., Parmer, R., and Kaufman, S., *1993-94 Schools and Staffing Survey: Sample Design and Estimation*, U.S. Department of Education, National Center for Education Statistics, NCES 95-089.

a school had been selected with certainty and subsequently subsampled for the library survey not with certainty, no bootstrap replicate weights were available, so records were sorted by stratum and order of selection and assigned variance stratum and panel.

The second instance was in the private area frame. These library sample records were assigned replicate weights by multiplying the school BHR replicate weight times the conditional probability of selection given the school is selected in the SASS school sample.

X. Definitions

The following terms are defined as they apply to the Library Survey.

- ***Imputation.*** Imputation is the creation of values for items that should have been answered by respondents but were not. Values may have been imputed by (1) using information from other items on the same data record (i.e., internal imputation), (2) extracting data from a related component of the Library Survey or the Schools and Staffing Survey (e.g., using data from a SASS school record to impute missing values to the record for the school's library), or (3) extracting data from the record for a sample case with similar characteristics (donor-based imputation or the "hot deck" method of imputing for item nonresponse).
- ***Head librarian.*** The head librarian is the school staff member whose main responsibility is managing the school's library media center.
- ***Library media center.*** A library media center is an organized collection of printed, audiovisual, or computer resources that (a) is administered as a unit, (b) is located in a designated place or places, and/or (c) makes resources and services available to students, teachers and administrators.
- ***Library media specialist.*** A library media specialist is a school professional staff member who is state-certified in the field of library media.
- ***School, BIA.*** BIA schools are those that are funded by the Bureau of Indian Affairs, U.S. Department of Interior. These schools may be operated by the BIA, a tribe, a private contractor, or a local education agency (or school district).

- ***School, combined.*** A school is classified as a combined school if it has sixth grade (or any lower grade) **and** ninth grade (or any higher grade); for example, schools with grades K-12, 6-12, 6-9, or 1-12 are classified as combined schools. Schools in which all students are ungraded (i.e., not classified by standard grade levels) are also classified as combined.
- ***School, elementary.*** A school is elementary if it has no grade higher than 8 and at least one of grades 1 through 6; for example, schools with grades K-6, 1-3, or 6-8 are classified as elementary schools.
- ***School, Indian.*** An Indian school is a school funded by the Bureau of Indian Affairs (BIA) that is not operated by an LEA. An Indian school may be operated by the BIA, a tribe, or a private contractor.
- ***School, private.*** A private school is a school that is not supported primarily by public funds (i.e., it is not a public school). It must provide instruction for one of more of grades 1 through 12 (or comparable ungraded levels), have one or more teachers and be located in a building that is not used primarily as a private home. Organizations or institutions that provide support for home schooling but do not offer classroom instruction for students are **not** included.
- ***School, public.*** A public school is an institution that provides educational services for at least one of grades 1 through 12 (or comparable ungraded levels), has one or more teachers, is located in one or more buildings, and is supported primarily by public funds. State schools (e.g., schools for the deaf or the blind), schools in juvenile detention centers, and schools located on military bases and operated by the Department of Defense are included.
- ***School, secondary.*** A school is secondary if it has no grade less than 7 and at least one of grades 7 through 12; for example, schools with grades 9-12, 7-8, 10-12, or 7-9 are classified as secondary schools.